

WHAT IS CLAIMED IS:

1. A transmission line comprising:  
a transmission line substrate;  
5 a signal line; and  
a first ground pattern that is provided on the transmission line substrate and is located between the transmission line substrate and a metal wire used to connect the signal line to a component.  
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2. The transmission line as claimed in claim 1, wherein the first ground pattern is located between the signal line and the component.
- 15 3. The transmission line as claimed in claim 1, further comprising a second ground pattern that is formed on the transmission line substrate and is parallel to the signal line, wherein the first ground pattern and the second ground pattern are integrally  
20 formed.
4. The transmission line as claimed in claim 3, wherein the first ground pattern and the second ground pattern are integrally formed and have one of an L  
25 shape and a horseshoe shape.
5. The transmission line as claimed in claim 3, wherein:  
the signal line has an arc-shaped end facing the  
30 first ground pattern; and  
the first ground pattern and the second ground pattern are integrally formed so as to have an arc-shaped portion that is equally spaced apart from the arc-shaped end.  
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6. The transmission line as claimed in claim 1, further comprising a second ground pattern formed on a

surface of the transmission line substrate opposite to the surface on which the signal line is formed, wherein the first ground pattern is connected to the second ground pattern via a through hole formed in the  
5 transmission line substrate.

7. The transmission line as claimed in claim 6, wherein the first ground pattern has a portion that surrounds an end of the signal line and has one of an L  
10 shape and a horseshoe shape.

8. A transmission line comprising:  
a transmission line substrate;  
a signal line; and  
15 a first ground pattern provided on a side surface of the transmission line substrate on which side a metal wire extends from the signal line toward a component.

9. The transmission line as claimed in claim 8, wherein the first ground pattern is provided between the signal line and the component.

10. The transmission line as claimed in claim 8, further comprising a second ground pattern formed on a  
25 surface of the transmission line substrate opposite to the surface on which the signal line is provided, wherein the first ground pattern and the second ground pattern are integrally formed.

11. A transmission line comprising:  
a transmission line substrate;  
a signal line; and  
30 means for adding a predetermined electric capacitance to a metal wire that connects the signal line to a component.

12. A device comprising:  
a transmission line including a transmission line substrate and a signal line provided on the transmission line substrate;  
5 a component;  
a metal wire connecting the signal line to the component; and  
a first ground pattern that is provided on the transmission line substrate and is located between the  
10 transmission line substrate and the metal wire.
13. The apparatus as claimed in claim 12, wherein the first ground pattern is provided between the signal line and the component.
- 15 14. The apparatus as claimed in claim 12, further comprising a second ground pattern that is provided on the transmission line substrate and is parallel to the signal line, wherein the first ground  
20 pattern and the second ground pattern are integrally formed.
15. The apparatus as claimed in claim 14, wherein the first ground pattern and the second ground  
25 pattern are integrally formed so as to have one of an L shape and a horseshoe shape.
16. The apparatus as claimed in claim 14, wherein:  
30 the signal line has an arc-shaped end facing the first ground pattern; and  
the first ground pattern and the second ground pattern are integrally formed so as to have an arc-shaped portion that is equally spaced apart from the  
35 arc-shaped end.
17. The apparatus as claimed in claim 14,

wherein the second ground pattern is connected to ground via a through hole formed in the transmission line substrate.

5           18.   The apparatus as claimed in claim 12,  
further comprising a second ground pattern formed on a  
surface of the transmission line substrate opposite to  
the surface on which the signal line is formed, wherein  
the first ground pattern is connected to the second  
10 ground pattern via a through hole formed in the  
transmission line substrate.

          19.   The apparatus as claimed in claim 18,  
wherein the first ground pattern has a portion that  
15 surrounds an end of the signal line and has one of an L  
shape and a horseshoe shape.

          20.   A device comprising:  
a transmission line including a transmission line  
20 substrate and a signal line provided on the  
transmission line substrate;  
a component;  
a metal wire which connects the signal line to  
the component; and  
25 a first ground pattern provided on a side surface  
of the transmission line substrate on which side a  
metal wire extends from the signal line toward a  
component.

30           21.   The device as claimed in claim 20, wherein  
the first ground pattern is provided between the signal  
line and the component.

          22.   The device as claimed in claim 20, wherein  
35 the first ground pattern is connected to ground on a  
surface of the transmission line substrate opposite to  
the surface on which the signal line is provided.

23. The device as claimed in claim 20, further comprising a second ground pattern formed on a surface of the transmission line substrate opposite to the surface on which the signal line is provided, wherein the first ground pattern and the second ground pattern are integrally formed.

24. A device comprising:  
10 a transmission line including a transmission line substrate and a signal line formed on the transmission line substrate;  
a component;  
a metal wire which connects the signal line to  
15 the semiconductor device; and  
means for adding a predetermined electric capacitance to the metal wire.